

Abstract

A fusion protein of pyrroloquinoline quinone glucose dehydrogenase (PQQGDH) and a cytochrome is disclosed. PQQGDH is, for example, a water-soluble PQQGDH derived from *Acinetobacter calcoaceticus*. The cytochrome is, for example, an electron transfer domain of quinohemoprotein ethanol dehydrogenase from *Comamonas testosteroni*. The fusion protein of the present invention shows intramolecular electron transfer from PQQ, a redox center, to the cytochrome, which allow construction of a direct electron transfer-type glucose sensor which requires no electron mediators.